



DOCKET NO.: C1039.70083US05

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

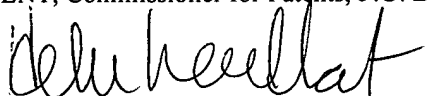
Applicant: Arthur M. Krieg et al.  
Serial No: 10/789,536  
Confirmation No: 9640  
Filed: February 26, 2004  
For: IMMUNOMODULATORY OLIGONUCLEOTIDES

Examiner: Nita M. Minnifield  
Art Unit: 1645

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 7th day of July, 2005.

  
Helen C. Lockhart, Ph.D., Reg. No. 39,248

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**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement is being resubmitted at the request of Examiner Minnifield in the Office Action dated February 10, 2005. The initial Information Disclosure Statement had been submitted on February 26, 2004 prior to the issuance of a first Office Action for the above referenced application. No fee or certification is believed to be due. If there is a fee due, the balance may be charged to Deposit Account 23/2825.

Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

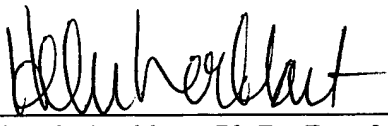
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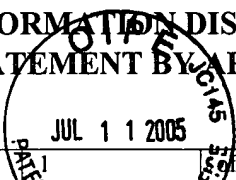
Art Unit: 1645

An early and favorable action is hereby requested.

Respectfully submitted,

By:   
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Docket No. C1039.70083US05  
Date: July 7, 2005  
**X07/10/05X**

FORM PTO-1449/A and B (Modified)		APPLICATION NO.: 10/789,536	ATTY. DOCKET NO.: C1039.70083US05
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> 		FILING DATE: February 26, 2004	CONFIRMATION NO.: 9640
		APPLICANT: Arthur M. Krieg et al.	
		GROUP ART UNIT: 1645	EXAMINER: Nita M. Minniefield
Sheet 1	2		

#### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	EPO	0 178 267 A2			04-16-1986	
	B2	JP	62-148428			07-02-1987	
	B3	PCT	US91/05815			08-14-1991	
	B4	PCT	US91/01327			09-05-1991	
	B5	PCT	0 216 133 B1			07-28-1993	
	B6	PCT	US94/02471			03-07-1994	
	B7	EP	0 302 758 B1			03-16-1994	
	B8	PCT	WO95/26204			10-1995	
	B9	PCT	WO96/02555			02-01-1996	

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
	C1	Anfossi et al. (P.N.A.S., 86, 9, 3379-83, 89, HCAPLUS, AN 1989:475562)		
	C2	Azad, Raana F. et al., "Antiviral Activity of a Phosphorothioate Oligonucleotide Complementary to RNA of the Human Cytomegalovirus Major Immediate-Early Region," <i>Antimicrobial Agents and Chemotherapy</i> , (1993) 37: 1945-1954.		
	C3	Azuma, I., "Biochemical and Immunological Studies on Cellular Components of Tubercle Bacilli," <i>Kekkaku</i> (1992) 67(9):45-55.		
	C4	Blaxter et al., "Genes expressed in Brugia malayi infective third stage larvae," <i>Molecular and Biochemical Parasitology</i> , (1996) 77:77-93.		
	C5	Etchart et al. "Class I-restricted CTL induction by mucosal immunization with naked DNA encoding measles virus haemagglutinin" pp. 15775761 vol 72, 1998		
	C6	Etlinger, "Carrier Sequence Selection -- One Key to Successful Vaccines," <i>Immunology Today</i> , (1992) 13(2):52-55		
	C7	Fox, R.I., "Mechanism of Action of Hydroxychloroquine as an antirheumatic Drug," <i>Chemical Abstracts</i> (1994) 120:15, Abstract No. 182630		
	C8	Kataoka T, et al., "Antitumor Activity of Synthetic Oligonucleotides with Sequences from cDNA Encoding Proteins of <i>Mycobacterium bovis</i> BCG," <i>Jpn. J. Cancer Res</i> (1992) 83:244-247.		
	C9	Kimura Y, et al., "Binding of Oligoguanylate to Scavenger Receptors Is Required for Oligonucleotides to Augment NK Cell Activity and Induce IFN," <i>J. Biochem</i> (1994) 116(5):991-994		
	C10	Kuramoto et al., "Oligonucleotide Sequences Required for Natural Killer Cell Activation," <i>Jpn. J. Cancer Res.</i> , (1992) 83:1128-1131.		

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: 10/789,536		ATTY. DOCKET NO.: C1039.70083US05	
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				GROUP ART UNIT: 1645		EXAMINER: Nita M. Minnifield	
Sheet	2	of	2				

**OTHER ART — NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C11	Messina et al., "The Influence of DNA Structure on the <i>in vitro</i> Stimulation of Murine Lymphocytes by Natural and Synthetic Polynucleotide Antigens," <i>Cellular Immunology</i> (1993) 147:148-157.	
	C12	Messina et al., "Stimulation of <i>in vitro</i> Murine Lymphocyte Proliferation by Bacterial DNA," <i>The Journal of Immunology</i> (1991) 147(6):1759-1764.	
	C13	Mottram, et al., "a Novel CDC2-Related Protein Kinase From Leishania Mexicana.LmmCRK1. Is Post-Translationally Regulated During the Life Cycle", <i>J. Biol. Chem.</i> , 268(28):21044-21052 (1993)	
	C14	Ren jun et al. (Zhonghua Zhong Zazhi, 1994, 16, 4, 247-50, HCAPLUS, AN 1995: 198874)	
	C15	Sato et al., "Immunostimulatory DNA Sequences Necessary for Effective Intradermal Gene Immunization," <i>Science</i> (1996) 273:352-354.	
	C16	Schnell et al., "Identification and Characterization of a Saccharomyces Cerevisiae Gene (PAR1) Conferring Resistance to Iron Chelators," <i>Eur. J. Biochem.</i> (1991) 200:487-493.	
	C17	Stull et al., "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects," <i>Pharmaceutical Research</i> , (1995) 12(4):465-483.	
	C18	Tanaka T. et al., "An Antisense Oligonucleotide Complementary to a Sequence in IG2b Germline Transcripts, Stimulates B Cell DNA Synthesis, and Inhibits Immunoglobulin Secretion, <i>J. Exp. Med.</i> , (1992) 175:597-607.	
	C19	Tokunaga T. et al., "Synthetic Oligonucleotides with Particular Base Sequences from the cDNA Encoding Proteins of <i>Mycobacterium bovis</i> BCG Induce Interferons and Activate Natural Killer Cells," <i>Microbiol. Immunol.</i> (1992) 36(1):55-66.	
	C20	Tokunaga, "A synthetic Single-stranded DNA, Poly(dG,dC), Induces Interferon-alpha/beta and -gamma, Augments Natural Killer Activity, and Suppresses Tumor Growth," <i>Jpn. J. Cancer Res.</i> (1988) 79(6):682-686.	
	C21	Wallace et al., "Oligonucleotide Probes for the Screening of Recombinant DNA Libraries,," <i>Methods in Enzymology</i> , (1987) 152:432-442.	
	C22	Whalen R., "DNA Vaccines for Emerging Infectious Disease: What If?," <i>Emerging Infectious Disease</i> , (1996) 2(3):168-175.	
	C23	Wu G.Y. et al., "Receptor-mediated Gene Delivery and Expression <i>in vivo</i> ," <i>J. Biological Chemistry</i> , (1988) 263:14621-14624.	
	C24	Yamamoto S. et al., "DNA from Bacteria, but not from Vertebrates, Induces Interferons, Activates Natural Killer Cells and Inhibits Tumor Growth," <i>Microbiol. Immunol.</i> (1992) 36(9):983-997.	

EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\* copies of these patents and patent applications are not enclosed pursuant to the waiver by the USPTO of the requirement under 37 C.F.R. 1.98 (a)(2)(i) for patent applications filed after June 30, 2003.